

REMARKS

I. Status and Disposition of the Claims

Claims 1, 3, 4, 6-23, and 27-72 are pending, with claims 53-72 withdrawn from consideration by the Office. No claims are amended or cancelled herein.

In the Final Office Action, the Office rejects claims 1, 3-4, 6-23 and 27-52 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Nos. 5,364,657 and 5,370,911 ("Throne '657" and "Throne '911" respectively; collectively, "the Throne references"). See Final Office Action, pages 2-4. In response, Applicants respectfully disagree with and traverse this rejection for at least the following reasons.

II. Response to Claim Rejection

The Office alleges that "Throne teaches glass fibers coated with particles having a particle size within the claimed range, thereby meeting the required particle size parameter." *Id.* at 3. The Office further alleges that the glass fiber product disclosed by the Throne references may be a pre-preg. See *id.* Though acknowledging that the Throne references do not teach that the particles reduce the tackiness of the glass fiber, the Office alleges that there is "reason to believe that the tractive tension of the resultant fiber product would be within the instant claimed range as well, in the absence of factual evidence to the contrary." *Id.* at 3-4. From this, the Office concludes that the features of claims 1, 3, 4, 6-23, and 27-52 are obvious in view of the Throne references. See *id.*

In the present case, Applicants disagree with and traverse the applied 35 U.S.C. § 103(a) rejection, at least because neither of the Throne references teaches or suggests each and every element of claims 1, 3, 4, 6-23, and 27-52.

Throne '657 discloses a process for coating a fiber tow with a thermoplastic polymer. See Throne '657, column 2, lines 60-62. This method includes, *inter alia*: (a) spreading a fiber tow; (b) moistening the spread tow; (c) depositing dry particles of thermoplastic polymer onto the moistened tow, the particles having a mean particle size of about 0.1 to 40 microns; (d) heating the particles to a temperature "**sufficiently high to fuse said particles of thermoplastic polymer and thereby form a coating[;]**" and (e) winding the coated fibers. See *id.* at column 2, line 62-column 3, line 9 (emphasis added). Throne '911 also discloses that "the *coatings* in tow-pregs of this invention are continuous and therefore fully compatible with the matrix polymer of the end use composite into which the two-preg (or pre-preg) herein is incorporated." See *id.* at column 7, lines 40-45.

Thus, Throne '657 teaches a process whereby a fiber is coated with particles, which are subsequently fused to form a coating that is compatible with a matrix polymer. See *id.* at column 2, line 62-column 3, line 9. However, Throne '657 does not teach or suggest a glass fiber product comprising, *inter alia*,

at least one glass fiber; and particles adhered to the at least one glass fiber, wherein at least one . . . [of] the particle size and amount of particles is effective to reduce the tackiness of the glass fiber product . . . ; **and** [wherein] the at least one glass fiber is at least partially coated with a coating, wherein the coating is a residue of a coating composition, wherein the coating composition is selected from a resin compatible coating composition.

Claim 1 (emphasis added). In particular, Throne '657 is silent with respect to a glass fiber that (a) has particles adhered to it for the purpose of reducing tackiness; **and** (b)

which is at least partially coated with coating that is a residue of coating composition selected from a resin-compatible coating composition, as claimed. See *id.*

Throne '911 also discloses a process for coating a fiber tow with a thermoplastic polymer. See Throne '911, column 3, lines 10-35. This method includes, *inter alia*, providing a fiber tow, coating the fiber tow with thermoplastic particles, and fusing the particles with heat to form a coating on the fiber tow. See *id.* However, like Throne '657, Throne '911 is silent with respect to a glass fiber that (a) has particles adhered to it for the purpose of reducing tackiness; **and** (b) which is at least partially coated with coating that is a residue of coating composition selected from a resin-compatible coating composition, as claimed. See claim 1.

Indeed, Throne '911 states, "[a]dditional solid or liquid materials, such as binders are neither necessary nor desirable. Rather, sufficient adhesion of coating particles to fibers is attained when both are in the dry state at the time of deposition." Throne '911, column 4, lines 50-55. Thus, Throne '911 actually **teaches away** from fibers that are at least partially coated with a coating composition **and** which have particles adhered thereto.

From the text of the Final Office Action, it appears that the Office considers the thermoplastic polymer particles and matrix polymer disclosed by the Throne references as equivalent to the claimed particles and residue of coating composition selected from a resin-compatible coating composition, respectively. However, this analysis improperly ignores the fact that polymer particles disclosed by the Throne references are **fused into a continuous coating** prior to the point at which the disclosed coated fiber is coated with **any** matrix material. As a result, the Throne references fail to disclose the

particles recited in claim 1 of the present invention. Moreover, again because the particles of the Throne references are fused prior to coating with any matrix material, the Throne references do not disclose a glass fiber product comprising at least one glass fiber that has particles adhered to it, **and** which is at least partially coated with coating that is a residue of coating composition selected from a resin-compatible coating composition, as claimed.

For the foregoing reasons, the Throne references do not teach or suggest each and every element of the pending claims, whether considered alone or in combination. Moreover, the Office has not explained *why* one of ordinary skill in the art would modify these references in an attempt to arrive at the claimed invention. Applicants therefore submit that the 35 U.S.C. § 103(a) rejection of claims 1, 3, 4, 6-23, and 27-52 in view of the Throne references is improper, and should be withdrawn.

III. CONCLUSION

In view of the foregoing remarks, Applicants submit that this claimed invention is patentable over the prior art references cited against this application. Applicants therefore request the Examiner's reconsideration of this application, and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to Deposit Account No. 06-0916.

Respectfully submitted,

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